What is claimed is:

1. A stage device, comprising:

a plurality of movable stages disposed on a certain movement plane so as to be movable independently of each other;

a first measurement system which measures within a predetermined measurement range a position of one of the plurality of movable stages; and

a second measurement system which measures an amount of positional deviation of each of the plurality of movable stages from a predetermined reference position within the predetermined measurement range, or a degree of coincidence of each of the plurality of movable stages with respect to the reference position,

wherein a measurement value obtained with the first measurement system is corrected on the basis of a measurement result of the second measurement system.

2. A stage device, comprising:

a plurality of movable stages disposed in a certain movement plane so as to be movable independently of each other;

a first measurement system which measures within a first measurement range a position of one of the plurality of movable stages;

a second measurement system which continuously measuring positions of the plurality of movable stages within a second measurement range partially overlapping the first measurement range; and

a control system which corrects the measurement results of the first and second measurement systems on the basis of the measurement results of these two measurement systems.

3. The stage device according to Claim 2, wherein the first measurement system is an interferometer, and the second measurement system is a plurality of interferometers which have successively and partially overlapping ranges of measurement.

4. An exposure apparatus provided with the stage device according to Claim 1, wherein masks on which mutually different patterns are formed are placed on the plurality of movable stages of the stage device, and the patterns of the mask on the plurality of movable stages are alternately transferred onto a substrate while being positioned.

5. An exposure apparatus provided with the stage device according to Claim 1, wherein a mask is placed on a first movable stage among the plurality of movable stages of the stage device, a characteristic measurement apparatus which measures characteristics in transfer of a pattern of the mask is placed on the second movable stage, and the pattern of the mask is transferred onto a substrate.

6. An exposure apparatus provided with the stage device according to Claim 1, wherein a substrate is placed on each of the plurality of movable stages of the stage device, and the plurality of substrates are alternately exposed with mask patterns while the plurality of movable stages are alternately positioned at a exposure position.

7. An exposure apparatus provided with the stage device according to Claim 1 and a projection optical system,

wherein a substrate is placed on the first movable stage of the plurality of movable stages of the stage device, a characteristic measurement apparatus which measures imaging characteristics of the projection optical system is placed on the second movable stage, and the substrate on the first movable stage is exposed with a mask pattern via the projection optical system.

8. A positioning method that makes use of the stage device according to Claim 1, wherein when one of the plurality of movable stages enters the measurement range of the first measurement system, the amount of positional deviation of the one movable stage from the reference position within the measurement range, or the degree of coincidence of the one movable stage with respect to this reference position, is measured by the second measurement system, and a measurement value obtained with the first measurement system is corrected on the basis of a measurement result of the second measurement system.

9. A positioning method that makes use of the stage device according to Claim 2, wherein when one of the plurality of movable stages enters the first measurement range from the second measurement range, the position of the one movable stage is simultaneously measured by the first and second measurement systems, and a measurement result of the first measurement system is matched on the basis of the measurement result of the position to a measurement result of the second measurement system.

10. A stage device comprising a movable stage that is movable at a predetermined degree of freedom;

an interferometer system which measures an amount of displacement of the movable stage by directing a measurement light at the movable stage and causing a reflected light thereof to interfere with a reference light, wherein the interferometer system has a plurality of measurement axes of the measurement light and is disposed such that even if one of the plurality of measurement axes diverges from the movable stage, the amount of displacement can still be measured by another measurement axis; and

a signal processing system with which, when the one measurement axis changes from the state of diverging from the movable stage to a state of irradiating the movable stage, a degree of interference of the one measurement axis is estimated from a measurement result for the another measurement axis, and an initial value of the one measurement axis is set on the basis of the estimated degree of interference and a phase measured with the one measurement axis.

11. The stage device according to Claim 10, wherein the interferometer system measures the amount of displacement of the movable stage in the form of $f(\lambda)\{N + \phi/(2\pi)\}$ with each of the plurality of measurement axes, where $f(\lambda)$ is a function of

the wavelength λ of the measurement light, N is an integer indicating the degree of interference, and ϕ is the phase.

12. The stage device according to Claim 10 ~~or 11~~, wherein the interferometer system further has a plurality of measurement axes adjacent to each other, which measure an angle of rotation of the movable stage.

13. The stage device according to Claim 10, ~~11, or 12,~~ wherein the interferometer system is a heterodyne interference type of laser interferometer.

14. A positioning method that makes use of the stage device according to ~~any of Claims 10 to 13~~ Claim 10, comprising:

estimating the phase of the one measurement axis from the measurement values of the another measurement axis in the estimation of the degree of interference of the one measurement axis from the measurement values of the other measurement axis;

comparing the estimated phase to the phase measured for the one measurement axis; and

correcting the degree of interference of the one measurement axis on the basis of this comparison result.

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15. An exposure apparatus provided with the stage device according to Claim 10, which transfers a mask pattern onto a substrate, wherein the stage device is used to position the mask or the substrate.

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16. A method which manufactures a device using the exposure apparatus according to Claim 14, including a step of transferring a mask pattern onto a substrate using the exposure apparatus.

17. An exposure apparatus provided with the stage device according to Claim 2, wherein masks on which mutually different patterns are formed are placed on the plurality of movable stages of the stage device, and the patterns of the mask on the plurality of movable stages are alternately transferred onto a substrate while being positioned.

18. An exposure apparatus provided with the stage device according to Claim 2, wherein a mask is placed on a first movable stage among the plurality of movable stages of the stage device, a characteristic measurement apparatus which measures characteristics in transfer of a pattern of the mask is placed on the second movable stage, and the pattern of the mask is transferred onto a substrate.

19. An exposure apparatus provided with the stage device according to Claim 2, wherein a substrate is placed on each of the plurality of movable stages of the stage device, and the plurality of substrates are alternately exposed with mask patterns while the plurality of movable stages are alternately positioned at a exposure position.

20. An exposure apparatus provided with the stage device according to Claim 2 and a projection optical system,

wherein a substrate is placed on the first movable stage of the plurality of movable stages of the stage device, a characteristic measurement apparatus which measures imaging characteristics of the projection optical system is placed on the second movable stage, and the substrate on the first movable stage is exposed with a mask pattern via the projection optical system.

21. A method which manufactures a device using the exposure apparatus according to Claim 5, including a step of transferring a mask pattern onto a substrate using the exposure apparatus.

22. A method which manufactures a device using the exposure apparatus according to Claim 6, including a step of

transferring a mask pattern onto a substrate using the exposure apparatus.

23. A method which manufactures a device using the exposure apparatus according to Claim 9, including a step of transferring a mask pattern onto a substrate using the exposure apparatus.

24. A method which manufactures a device using the exposure apparatus according to Claim 25, including a step of transferring a mask pattern onto a substrate using the exposure apparatus.

25. A method which manufactures a device using the exposure apparatus according to Claim 14, including a step of transferring a mask pattern onto a substrate using the exposure apparatus.

26. A method which manufactures a device using the exposure apparatus according to Claim 16, including a step of transferring a mask pattern onto a substrate using the exposure apparatus.

27. A method which manufactures a device using the exposure apparatus according to Claim 18, including a step of

transferring a mask pattern onto a substrate using the exposure apparatus.